

Coverslip Removal : A Study of Comparative Methods

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Introduction:

In our Institution, we received a lot of consulted Pap smeared slides from various laboratories. The slides were mixed new and old ones. Some of them were poorly stained and needed to be restained. Coverslip removal of these slides by soaking in xylene (conventional method) took a long time depending on the age of the slides. So we tried to find out the alternative methods aiming in decreasing the duration without any disturb to the cell morphology. This study is part of our routine to research study.

Materials and methods:

Two hundred and forty negative-Pap smear slides are retrieved from the files. Half of these slides were one-year old and the others were two-years old. Thirty slides from each year are immersed in xylene with every four-hours checking until overnight. The remaining 90 slides of each year are divided into 3 batches of 30 slides each. They were put into the freezer with coverslip down for 10, 20, and 30 minutes. The coverslip removal was determined by coming off easily after slipped around the edges by a razor blade.

Results:

The coverslip removal in conventional method needed 24-hrs for the coverslip to come off from the slides from each year. In the freezing method, the come-off rate was as follow: The first-year batch come-off were 16/30 (53%), 24/30 (80%), and 30/30 (100%) for the freezing duration of 10, 20, and 30 minutes, respectively. The second-year batch come-off rate were 24/30 (80%), 30/30 (100%), and 30/30 (100%) for the freezing duration of 10, 20, and 30 minutes, respectively.

Conclusions:

The freezing method is superior to the conventional method in removal of the coverslip. It decreases the duration from 24 hours to 30 minutes. This method is quite convenient and shows no effect on the cellular morphology. We have used this method for routine coverslip removal in our laboratory.